NUST

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LAB MANUAL 06

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LAB TASKS:

Q 1 Generate the Fibonacci sequence using nested loops.

CODE:

```
#include<iostream>
using namespace std;
int main( ) {
	int n,sum,num1=0,num2=1;
	cout<<"ENTER THE NUMBER OF DIGITS IN FIBONNACI SEQUENCE: ";
	cin>>n;
	cout<<"THE FIBONNACI SEQUENCE IS: ";
	cout<<num1<<","<<num2<<",";
	for(int i=1;i<=n;i++){
		sum=num1+num2;
		num1=num2;
		num2=sum;
		cout<<sum<<",";
	}
	return 0;
}
```

RESULT:

```
ENTER THE NUMBER OF DIGITS IN FIBONNACI SEQUENCE: 5
THE FIBONNACI SEQUENCE IS: 0,1,1,2,3,5,8,
--------------------------------
Process exited after 2.893 seconds with return value 0
Press any key to continue . . .
```

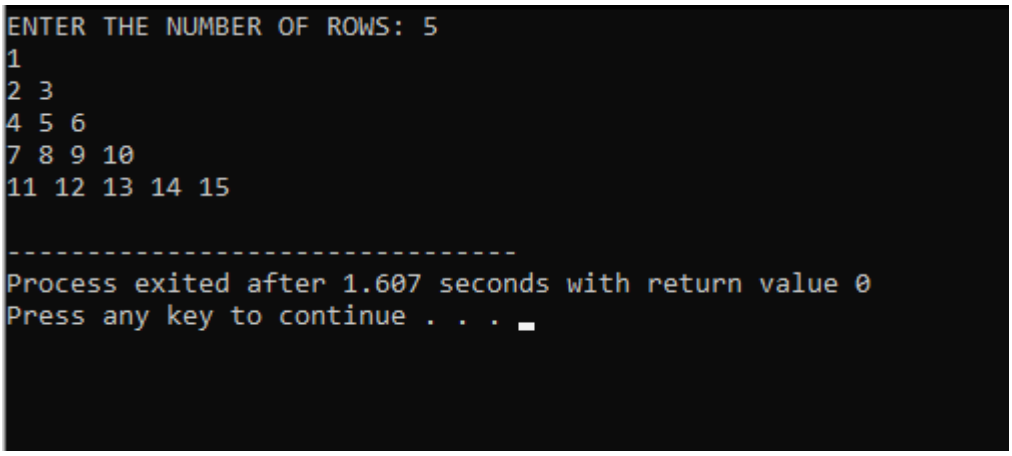
Q 02 Create Floyd's triangle with nested loops.

CODE:

```
#include<iostream>
```

```
using namespace std;
int main( ){
	int n,m=1;
	cout<<"ENTER THE NUMBER OF ROWS: ";
	cin>>n;
	for(int i=1;i<=n;i++){
		for(int j=1;j<=i;j++){
			cout<<m<<" ";
			m++;
		}
		cout<<endl;
	}
	return 0;
}
```

RESULT:



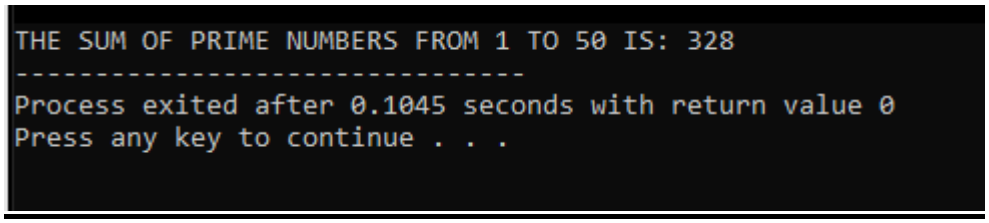
HOME TASKS

Q 01 Write a program using break or continue statement that only adds prime numbers from 1 to 50 and display the sum on screen

CODE:

```
#include<iostream>
using namespace std;
int main( ){
	int i,j,sum=0;
	for(i=2;i<=50;i++){
		for(j=2;j*j<=i;j++){
			if(i%j==0){
				break;
			}
		}
			if(j*j>i){
				sum=sum+i;
			}
	}
	cout<<"THE SUM OF PRIME NUMBERS FROM 1 TO 50 IS: "<<sum;
	return 0;
}
```

RESULT:



Q 02 Write a program in C++ to create the following pattern.

1

1 2

1 2 3

1 2 3 4

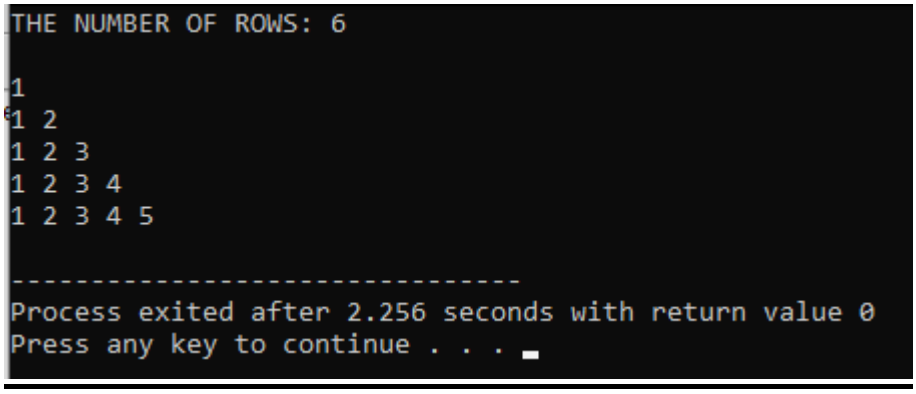
1 2 3 4 5

CODE:

```
#include<iostream>
using namespace std;
int main( ){
	int n;
	cout<<"THE NUMBER OF ROWS: ";
	cin>>n;
	for(int i=1;i<=n;i++){
		for(int j=1;j<i;j++){
		cout<<j<<" ";
		}
		cout<<endl;

	}
	return 0;
}
```

OUTPUT:



Q 03 Write a C++ program to print:

1

2 2

4 4 4

6 6 6 6

CODE:

```
#include<iostream>
using namespace std;
int main( ){
	int n,m=1;
	cout<<"ENTER THE NUMBERE OF ROWS: ";
	cin>>n;
	cout<<m<<endl;
	for(int i=1;i<=n;i++){
		for(int j=1;j<=i;j++){
			if(i%2==0){
		cout<<i<<" ";
	}
	}
	cout<<endl;
```

```
    }
    return 0;
}
```

RESULT:

```
ENTER THE NUMBERE OF ROWS: 6
1

2 2

4 4 4 4

6 6 6 6 6 6

--------------------------------
Process exited after 2.373 seconds with return value 0
Press any key to continue . . .
```